# Executive Summary

This report presents national overall trends, as well as demographic, psychosocial and clinical profiles, of overdose and other drug-induced deaths (i.e., where drugs have been deemed the underlying cause of death) in Australia from 2004 to 2023. It draws on data from the Cause of Death Unit Record File (COD URF) collated by the Australian Bureau of Statistics (ABS). **Most drug-induced deaths are certified by coroners, the ABS applies a three-year revision process. As such, data for 2022 are considered 'revised' and for 2023 'preliminary revised', but neither is final and will be subject to revision.**

This report excludes deaths where alcohol or tobacco use was the underlying cause, as they fall outside our scope (see methods). Except in **Panel C**, references to alcohol-involved drug overdose deaths refer to cases where another drug was the main cause, but alcohol was also involved.

**Our public online data visualisation allows viewers to disaggregate data in different ways, and to download these images for their own use.**

## Overall

Drug-induced deaths in Australia continue to be a significant public health issue. Preliminary data show that there were 1,762 drug-induced deaths, including those from drug overdose, among Australians in 2023, as compared to 1,874 deaths in 2022. This number equates to 6.6 deaths per 100,000 people in 2023 (7.2 deaths per 100,000 people in 2022). These findings suggest a potential return to the downward trend observed in 2017-2021.

The number of deaths in 2023 is equivalent to 5 drug-induced deaths per day among Australians and comprises around 1% of all registered deaths in Australia.

The issue of drug-induced deaths is complex and multifaceted, with factors such as socio-economic disadvantage, mental health, and lack of access to healthcare and harm reduction services playing a key role.

**Alcohol-induced deaths (see Panel C)**. Although this report focuses on drug-induced deaths, alcohol remains a major contributor to mortality in Australia. In 2023, there were 1,700 alcohol-induced deaths, equivalent to 5.8 per 100,000 people, slightly lower than the revised 2022 rate (6.2), but still higher than observed in 2021. These figures are expected to rise with further data revisions. In 2023, most deaths were due to alcoholic liver disease (63%) and alcohol-related mental and behavioural disorders (23%). Males accounted for 71% of deaths, with the highest rates among those aged 55-64 (median age: 58 years). These estimates only include deaths directly attributed to alcohol and do not capture the broader burden of alcohol-related harm.

## Sociodemographic Characteristics

### Sex

Males consistently accounted for around two-thirds of drug-induced deaths (65% in 2023), with a rate of 8.7 per 100,000 compared to 4.4 for females in 2023.

### Age

In 2023, drug-induced deaths were highest among those aged 45-54, both in percentage (27%) and rate (14 per 100,000 people), followed by those aged 35-44 and 55-64. While those aged ≥85 had the lowest percentage (2.2%) of drug-induced deaths, the rate remained relatively high (7.0 per 100,000).

Since 2004, there has been a shift toward older age groups (45-74), with declining deaths among younger adults (15-44). Most age-specific rates peaked around 2017–2019, with a notable decline in the 35-44 age group observed from 2017 onward. Among males aged 55-64, deaths have steadily increased across 2004-2023, with the preliminary rate in 2023 already comparable to/on par with the peaks observed in 2018 and 2020.

**Impact of COVID-19 pandemic on mortality (see Panel B)**. The COVID-19 pandemic had both direct and indirect impacts on mortality in Australia. While COVID-19 itself contributed significantly to excess deaths in 2022, broader effects included disruptions to healthcare, changes in health behaviours, and increased mental health challenges. Substance use patterns also shifted: early disruptions to drug markets reduced availability and use of some drugs, but more recent data show increased use in some areas.

Our previous analysis found that drug-induced hospitalisation and death rates up to 2021 were consistent with predicted. Updated data suggest similar drug-induced death rates in 2022 compared to 2021, with a possible decline in 2023. These trends should be viewed in the context of all-cause mortality, which declined in 2023 after a peak in 2022. However, as noted above, data for 2022 and 2023 remain subject to revision and are expected to increase.

## Remoteness Area of Usual Residence

In 2023, the highest proportion of drug-induced deaths occurred among residents of major cities (71%), while the highest population rate was recorded in inner regional areas (7.1 per 100,000). Rates in major cities declined significantly from 2022, whereas inner regional rates rose slightly.

Since 2009, drug-induced death rates generally increased across all remoteness areas, peaking around 2016-2018 before declining. The 45-54 and 35-44 age groups had the highest proportion and rate of deaths in both major city and regional/remote areas.

## Socioeconomic Advantage and Disadvantage

In 2023, 32% of drug-induced deaths occurred in the most disadvantaged areas - a pattern broadly consistent across most drug classes, except for cocaine. A higher proportion of cocaine-related deaths occurred in more advantaged areas compared to other substances.

## Underlying Cause of Death and Intent

The intent of death is recorded for drug overdose deaths only. As in previous years, drug overdose ('poisoning') deaths accounted for the majority (97%; 1,701 deaths) of all drug-induced deaths in 2023. In 2023, 71% (1,204 deaths) of drug overdose deaths were coded as unintentional and 25% (418 deaths) as intentional.

The rate of unintentional drug overdose deaths nearly doubled from 2004 to 2018, increasing on average by 4.7% per year, and declining thereafter. In contrast, the rate of intentional drug overdose deaths has remained low and relatively stable. Caution is advised when interpreting trends from 2004 and 2005, as the absence of a revisions process during that period may have led to undercounting/misclassification of intent.

The 2022 estimates for both intentional and unintentional deaths were similar to the final 2021 estimates, while the 2023 rates were significantly lower than those in 2022.

## Psychosocial Risk Factors

Between 2017 and 2023, over two in five (45%, 6,105 deaths) drug-induced deaths had at least one psychosocial risk factor coded. Almost two-thirds (63%) of the identified risk factors were related to socioeconomic and psychosocial circumstances (in particular, problems related to primary support group).

In 2023, as in previous years, personal history of self-harm was the most frequently identified psychosocial risk factor (15%, 257 deaths). It was more common in deaths involving females than males. It was also the most frequently identified psychosocial risk factors across all age groups, except for those aged 75 and over, for whom limitation of activities due to disability or chronic health condition was the most common psychosocial risk factor (30%).

## Place of Occurrence

In 2023, the most common location of the incident underlying the drug overdose death was home (75%, 1,324 deaths). This has been consistent over time. The location was coded as home for a larger proportion of intentional 83% (346 deaths) than unintentional 76% (920 deaths) deaths.

# Drug Involvement

Similar to previous years, opioids (such as heroin and pharmaceutical opioids) were the most commonly involved drug class in drug overdose deaths in 2023 (56%, 981 deaths), followed by antiepileptic, sedative-hypnotic and anti-parkinsonism drugs (49%, 864 deaths; predominantly benzodiazepines, 694 deaths).

Since 2004, drug overdose death rates have increased across all drug types, generally peaking in 2017 or 2018, and declining thereafter. However, rates for cocaine and amphetamine-type stimulants continued to increase, reaching their peak in 2020, and remaining relatively stable since.

Analysis showed a significantly lower rate of drug overdose deaths in 2023 as compared to 2022 for:

- opioids,
- antiepileptic, sedative-hypnotic and anti-parkinsonism drugs,
- antidepressants,
- antipsychotics and neuroleptics,
- alcohol,
- non-opioid analgesics, antipyretics and antirheumatics, and
- cannabinoids.

Caution is needed when interpreting the decrease in the involvement of cannabinoids in drug-induced deaths until further data revisions. An increase in the use of the R78.3 code ('Finding of hallucinogen in blood', which includes cannabinoids) since 2021 may have contributed to the reduced use of the T40.7 code ('Poisoning by cannabis (derivatives)') during the same period.

## *Profile of Drug Involvement*

Between 2019 and 2023, the majority (75%) of drug overdose deaths included two or more drug classes of interest. Despite this, the most common drug pattern profiles for unintentional overdose deaths were amphetamine-type stimulants only (9.1%) and heroin only (6.0%). For intentional overdose deaths, the most common drug pattern profile was antiepileptic, sedative-hypnotic and anti-parkinsonism drugs only (8.7%).

## *Drug Overdose Deaths Involving Opioids*

In 2023, there were 981 opioid-related overdose deaths in Australia (3.7 per 100,000 people), with four in five considered unintentional. While opioid deaths peaked in 2017, rates have since declined, including a significant drop in both unintentional and intentional deaths in 2023 compared to 2022. However, these figures are preliminary and may increase with data revisions.

Opioid-related deaths were more than twice as common among males (69%) and most prevalent in the 45-54 age group. Over time, the age profile has shifted from younger to older adults, with rising rates in the 35-74 age groups, which peaked around 2017-2018. Conversely, opioid related deaths have declined in those aged 25-34 and remained low in those aged 15-24, 75-84 and 85+.

In terms of substances, heroin was involved in 38% of overdose deaths involving opioids, with pharmaceutical opioids (natural/semi-synthetic, synthetic, and methadone) also contributing significantly. Since 2012, there has been a notable rise in heroin-only deaths and a decline in deaths involving other opioids only. This trend may be partly attributable to improved identification of heroin over time.

Common co-involved substances in opioid deaths included benzodiazepines (56%), antidepressants (33%), amphetamine-type stimulants (28%), and alcohol (18%). Most of these peaked around 2018 and have since declined, though deaths involving antiepileptic and sedative-hypnotic drugs, unspecified (predominantly comprising pregabalin) have remained elevated.

## *Drug Overdose Deaths Involving Amphetamine-Type Stimulants*

In 2023, there were 547 overdose deaths involving amphetamine-type stimulants in Australia, equating to 2.2 deaths per 100,000 people. The majority of these deaths (72%) occurred among males, and 91% were classified as unintentional.

Since 2004, the rate of overdose deaths involving amphetamine-type stimulants has increased significantly, particularly between 2011 and 2020, peaking in 2020 before subsequently stabilising. While 2022 and 2023 estimates were slightly higher than 2021, they were not statistically different. Over time, deaths have shifted from younger to older age groups, with the highest rates in 2023 observed among those aged 35-54, and continued increases noted in the 45-64 age groups.

## *Drug Overdose Deaths Involving Cocaine*

In 2023, there were 96 drug overdose deaths involving cocaine in Australia, which was similar to the peak observed in 2020, with 84% of cases involving males and

89% classified as unintentional. Cocaine-related deaths were most common among people aged 25-34, followed closely by those aged 35-44.Since 2004, cocaine-related deaths have increased six-fold, with a particular increase observed between 2013 and 2021. While the 2022 rate declined, the preliminary 2023 rate rose again, particularly among older age groups (35-54), suggesting a potential continuation of the upward trend. However, due to small numbers, these findings should be interpreted with caution and may change with future data revisions.

## Jurisdiction of Usual Residence

Detailed analyses of deaths by jurisdiction (including by sex, age, intent, remoteness area, drug type and place of occurrence) are available at the end of this report.

## Implications

- Generally lower rate of drug-induced deaths in 2023 compared to 2022 is encouraging but should be interpreted cautiously due to data revision cycles.
- Persistent disparities by sex, age, geography, and socioeconomic status highlight the need for targeted interventions.
- The continued prominence of opioids and rising stimulant-related deaths underscore the critical need for investment in harm reduction and evidence-based treatment services.